

Cooking from home storage with rice

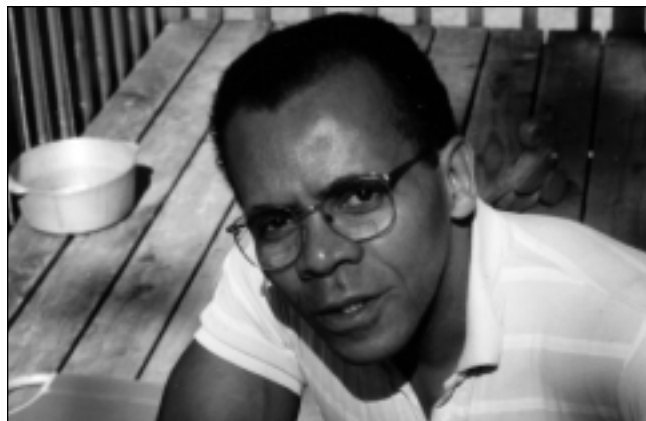
Most of the long-shelf-life foods you put into your food storage are good to eat, easy to cook, reasonably priced, nutritious, easily digested, non-allergenic, low in both cholesterol and sodium, and should be high on your everyday shopping list. But there's one food that beats the rest. This extraordinary and versatile food can reduce your reliance on expensive and hard to store protein foods, like meat, and can be used in soups, salads, and main-dish casseroles. You may be surprised when I tell you that this gastronomical wonder is regular white rice. It is the preferred food of nearly half of the world's population and is considered to be one of the world's two most important food crops, the other being wheat. Let's take a fresh look at this marvelous grain and perhaps learn something about its origins, its life cycle, and what it really has to offer us as a primary food in our home storage.

A short history of rice

Rice is a grass similar to wheat, oats, and barley that became a food source to early humans when they first taught themselves to cook. It proved to be an extraordinarily adaptable grain, and its cultivation probably began in many different places at different times. Wild rices, taking footholds in numerous habitats, evolved specific characteristics to ensure its survival in those habitats. Also, as humans began to migrate, they brought their favorite rice with them, often into areas where growing conditions were not suited for the particular rice variety they brought. But people proved to be adaptable, as well as creative, and they again quickly began to develop the art of selective farming, an art that included the effective breeding of adaptable rice varieties, along with making manageable changes in the growing environment to help these rices thrive.

There are about 25 species of rice, but we only cultivate and eat one. Yet, that one species provides the thousands of cultivated rice varieties we grow today.

I first took a serious interest in rice during the Green Revolution of the 1970s. At that time, experts believed the original cultivation of rice occurred in northern Thailand and Vietnam, based on archeological finds of rice grains dated back to 3500 BC. Recently, however, carbon-14 measurements have placed the earliest cultivation of rice in central China, south of Shanghai. These rice remains have been dated back almost 6000 years. By around 500 BC rice was being grown in large parts of India, China, Indochina, the Philippines, Indonesia, and Malaysia. By about 200 BC it was present in Japan and the Middle East. The Greeks and



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Romans took no serious interest in rice. They regarded it as an expensive and impractical medicine to be used only by rich food faddists who could secure it from India.

However, by the middle of the 12th century we know that rice had made its way to Europe. At that time bubonic plague had killed off about one third of the work force in Europe. With the manpower shortfall, lower yields of staple crops, like wheat and barley, were being harvested. Rice, a high yielding and energy-giving crop that required less labor than other crops, was imported to fill the void. By the middle of the 18th century, rice was being imported in large enough quantities to England to be considered an ordinary table staple.

Just how and when rice finally made it to North America is a matter of conjecture. Some say that rice seeds were taken across from Africa on slave ships. Between 1620 and 1647 unsuccessful attempts were made to plant rice in Virginia and North Carolina. Finally, in the 1690s, rice imported from Madagascar was successfully planted in the swamplands of South Carolina. These mosquito infested fields were tended by slaves brought from West Africa where rice farming was well established. When the Civil War freed the slaves, the affluent culture created by growing and exporting millions of tons of Carolina Gold rice came to an end. But rice made a comeback, and today Arkansas, California, Louisiana, Texas, and Mississippi grow and market most of the rice in this country.

Types of rice

Since the early 1900s botanists have debated just how to classify the endless varieties and subspecies of cultivated rice, but they have not reached universal agreement. In 1928

The term "Green Revolution" describes the highly publicized development and distribution of modern agricultural technology during the 1960s and 1970s. During this period, high yielding cultivars of various crops, but in particular rice, were distributed from technologically advanced countries to major agricultural areas around the world. For example, the International Rice Research Institute, founded in the Philippines, introduced high-yielding, disease-resistant varieties of rice to tropical Asia. The program was so successful that Indonesia, one of the world's perennial rice importers, became self sufficient and started exporting large quantities of rice by the early 1980s. This unexpected turn around caused other rice exporting countries problems as the market price of rice crashed around the world.

a Japanese scientist lumped all these varieties into two groups: long grain, non-sticky rice called **indica** and short grain sticky rice called **japonica**. Since then there has been a third classification added—the long grain sticky varieties

called **javinica**. What makes a rice sticky or non-sticky is the proportion of starch molecules that each grain contains. All cereal grains contain two types of starch molecules: amylose and amylopectin. Amylose starch molecules are more loosely constructed and bond easily with water molecules. This makes the rice sticky. Amylopectin starch molecules are compact in structure, a characteristic that prevents them from easily bonding with water molecules and results in nonsticky rice. All rices contain both types of starch strung together in long molecular chains. Japonica and javinica rice varieties are higher in amylose starch than indica rices and are, consequently, sticky.

Does it need all that water to grow?

Because of man, cultivated rice has evolved over the millennia from a non-water dwelling genus into a water-loving species that now needs a lot of water to really thrive. Some say that water provides a thermal blanket to protect the crop

Baked aromatic rice

This is, in my opinion, one of the most elegant yet simple ways to prepare aromatic rice. The delightful flavor and aroma of this kind of rice is not smothered with unnecessary flavor enhancers, and nothing is added to alter the delicate texture of the rice. If you live in an area that has specialty food stores that sell aromatic rice, like Basmati, I suggest that you buy the best quality rice they have to offer. One of the finest Basmati rices is Dehra Dun, grown in Northern India. It has long white grains and develops a wonderful aroma when cooked the way that I will describe to you. If you can't find imported Basmati rice, the American variety will work well. American Basmati, however, does not have the same intense aroma of the imported variety.

Ingredients:

2 cups long grain Basmati rice	4 Tbsp. unsalted butter
cold water to rinse and soak the rice	1 Tbsp. virgin olive oil
1 tsp. kosher salt	Kosher salt, to taste
4 qts. water	fresh ground black pepper, to taste

Method:

1. Preheat the oven to 350 degrees F.
2. Place the rice in a large bowl and fill the bowl with cold water. Rub the rice between your fingers to remove the surface starch from the grains. Carefully change the water and repeat the rinsing until the water is clear. Drain off and discard the water.
3. Place the rice in a smaller bowl with one quart of fresh cold water. Let the rice soak in this water for at least 30 minutes. Drain and discard the water.
4. Combine the salt with the four quarts of water (that's right, four quarts) and bring it to a boil over medium-high heat. Add the rice and stir the mixture to ensure that the rice does not stick to the bottom of the pot.
5. Cook the rice until the grains are cooked $\frac{3}{4}$ of the way through. When you remove a grain from the pot and bite into it, it should be fully cooked on the outside and slightly crunchy on the inside. This should take about 10 minutes.
6. Immediately drain the rice and rinse with warm water.
7. In a small, heavy-bottomed sauce pan, over low heat, melt the butter with the olive oil. Season this mixture to taste, with salt and fresh ground black pepper. The more black pepper you add, the more flavor this rice will have.
8. Place the rice in a non-stick baking pan and evenly drizzle the melted butter and olive oil on top of the rice. Cover the pan tightly with aluminum foil and bake in the oven for 15 to 20 minutes.
9. Remove from the oven and let rest for five minutes before serving.

against temperature extremes. Others say that the water in flooded fields serves to drown weeds that would otherwise compete with the rice seedlings.

A healthy rice paddy can best be described as a complex ecological system, like an aquarium. The water helps to maintain a proper balance of beneficial bacteria and complementary microorganisms. This natural balance is maintained by proper management of the irrigation system, because a field is only flooded for part of the growing season.

In healthy irrigated fields the water is changed several times during the growing season. But rice is incredibly adaptable and certain varieties have thrived in stagnant water. The main difference between rain-fed rice and irrigated rice is that rain-fed rice will, at best, produce only one crop a year. A properly managed irrigated rice paddy will produce two or three, and farmers around the world take advantage of this.

Types of rice and how to use them

In this country there are three types of rice readily available on the retail market: long grain, medium grain, and short grain. Long grain is by far the most popular and the most versatile. It is sold in several different forms. Reviewing all varieties of long grain, medium grain, and short grain rices is beyond the scope of this short article. So

I will focus on the long grain varieties and describe how you are likely to find them in a typical grocery store.

Long grain brown rice: This rice undergoes minimal processing. During the milling process only the outer husk is removed leaving the bran layers intact. It is then heat treated to prevent the bran oils from going rancid in storage. Despite this treatment, brown rice still has a shorter shelf life than polished white rice. But under refrigeration brown rice will keep for more than six months.

Parboiled or converted rice: Parboiling rice is a process that began in India over 2000 years ago. Basically, after the rice is threshed from the stock, it is soaked in water for several hours, then steamed for a few minutes. It is then dried and milled in the usual way. One great advantage of this process is that a percentage of the nutrients contained in the bran are pushed into the starchy endosperm. This prevents them from being lost when the rice is further processed and polished. The process imparts a slightly yellowish color to the uncooked grain. It also requires more water and more time to cook than regular white rice. The term "converted," which is used to mean parboiled, is a registered trademark for Uncle Ben's rice.

For rice storage, converted rice is probably the best there is because it stays stable longer during storage and it will withstand a wider variety of cooking techniques without turning to mush.

No-fail boiled rice

I often listen to people who are excellent cooks complain about how difficult it is for them to cook rice. Some of them have become so intimidated that they avoid rice completely. This is a shame, because cooking rice is less complicated than cooking other starches like pasta and potatoes. When you cook pasta and potatoes it is necessary to constantly test them during the latter stages of the cooking process. One great advantage of cooking rice is that, with few exceptions, it is predictable. Using the proper amount of liquid, cooking the rice in a heavy bottom sauce pan, and keeping your eye on the clock is the no-fail formula for cooking rice. I will prove it to you with the following. This recipe makes three cups of perfectly cooked long or medium grain white rice. The medium grain will be a little softer than the long grain. I don't use any butter or margarine when I boil rice because I can't see any advantage to adding it during the cooking process. I do add a variety of embellishments after the rice is cooked. These include: butter, Parmesan cheese, fresh ground black pepper, olive oil, ground nuts, chopped apples, and chopped fresh chili peppers. Let your imagination be your guide. Who said boiled rice was dull food?

Ingredients:

1 cup long grain white rice
½ tsp. kosher salt
1¾ cups cold water

Method:

1. Place the rice, salt, and water in a heavy-bottom sauce pan and cover tightly, and bring the mixture to a boil over medium heat.
2. When steam starts escaping from the cover, turn the heat to very low. Do not remove the cover.
3. Cook the rice for exactly 20 minutes on low heat, then remove the pan from the burner. Do not remove the cover.
4. Let the rice stand, undisturbed, for another 20 minutes. Remove the cover and lightly fluff the rice with a fork.

Spider rice casserole

If you have a sturdy gas or charcoal grill and a cast iron Dutch oven with a cast iron lid, you can make this whole thing right on the grill. But I suggest you try it first on your range top where you have more control of the heat. My friend, Howard, sears the chicken on skewers over a bonfire, assembles the remainder of the ingredients in his spider kettle, and places the whole thing in the fire for about 45 minutes and it comes out perfect every time. I have not had the courage to attempt this yet. Some day. Some day.

Special Equipment: 1 five-quart or larger cast iron Dutch oven.

Ingredients:

6 skinless chicken thighs	4 whole cloves	1 cup of canned low fat chicken stock
½ tsp. kosher salt	4 whole green cardamom pods	¾ cup of your favorite ale or beer, room temperature and flat
¼ tsp. fresh ground black pepper	1 three-inch stick cinnamon	Kosher salt to taste
3 Tbsp. peanut oil or other light vegetable oil	¼ tsp. whole cumin seeds	½ tsp. fresh ground black pepper
1 cup diced yellow onion	1½ cups long grain brown rice	
2 cloves fresh garlic, minced	1 10-ounce can diced tomatoes with chili peppers (Or-Tel brand is best)	
1 Tbsp. fresh ginger, minced		

Garnish:

2 Tbsp. fresh cilantro, chopped ¼ cup toasted sliced almonds

Method:

1. Combine the salt and pepper and rub this mixture onto the washed chicken.
2. Heat the oil in the Dutch oven over medium heat, then add the chicken in a single layer and fry until the chicken is browned on both sides and cooked about two thirds of the way through. Remove the chicken from the pan and set it aside.
3. Add the onions to the pan and cook over medium heat until they are lightly browned. Add the garlic, ginger, whole cloves, cardamom seed, stick cinnamon, and cumin seed. Cook the mixture while stirring constantly for about two minutes.
4. Add the brown rice and stir the mixture for one minute.
5. Add the tomatoes, chicken stock, beer, salt and pepper to taste, increase the heat to medium high, and bring the mixture to a boil. Return the chicken to the pot and put the cover in place. When the mixture begins to boil again, reduce the heat to low and cook the casserole for exactly one hour.
6. Remove the pot from the heat and let the casserole rest, with the cover in place, for 15 minutes.
7. Before serving, sprinkle the chopped cilantro and toasted almonds evenly over the casserole.

The reason whole spices are used in this recipe is that under cooking conditions the flavors are slowly released into the casserole. You can try to find them and pick them out before serving the meal, but I just let people do it themselves from their own plates.

Regular enriched white rice: This is fully milled long grain rice. The bran layer has been removed and the rice has been polished. The rice is then coated with a soluble coating that is enriched with iron, niacin, and thiamin. This rice is whiter than parboiled rice before it is cooked. It also cooks faster and with less water.

Precooked rice: This is simply rice that has been cooked until it is ready to eat, then dried and packaged. Personally, I would rather cook my own rice than pay someone else an inflated price to cook it for me. The small amount of time saved isn't worth the price.

Boil-in-the-bag rice: Again this is only designed to be a time saver and is sold at an inflated price. Boil-in-the-bag is

usually parboiled rice packed in a muslin-type bag, probably for the sole purpose of keeping it from sticking to the pot. It is not for me. We can all learn to cook bulk rice without it sticking to the pot.

The following classes of rice are called aromatic long grain rice:

Basmati: This is a long grain highly aromatic rice that is imported from Punjab India in the foothills of the Himalayas. The individual grains of this rice are longer and thinner than other varieties of long grain rice. I use it when I make pilafs, curries, and biryanis. Biryanis are elaborately layered Basmati rice and meat or vegetable casseroles enhanced with a subtle mixture of exotic fragrant spices.

Fajita rice

This recipe is designed for folks that have limited access to refrigeration and must rely on shelf stable and root cellar foods for their cooking needs. I must say that all fajita seasonings are not created equal. Of the brands listed below, I like the Ortega best. The Old El Paso contains a lot of chile pepper flakes which makes the casserole too spicy. The Taco Bell, and the Chi-Chi's, on the other hand, don't have enough flavor to make the casserole interesting. My daughter, Sarah, was adding my homemade hot sauce to the Taco Bell version.

Special Equipment: 1 five-quart cast iron Dutch oven

Ingredients:

3 Tbsp. virgin olive oil
2 medium yellow onions, diced medium
2 cloves fresh garlic, minced
1½ cups long grain parboiled (converted) rice
1 pkg. fajita seasoning (Ortega, Taco Bell, Old El Paso, Chi-Chi's etc.)

3 cups chicken stock
1 14 oz. can of pinto beans, drained
1/3 cup canned or bottled roasted peppers, diced medium

Method:

1. Heat the olive oil in the Dutch oven over medium heat. Add the diced onions and cook until they are lightly browned.
2. Add the garlic and cook for one minute, stirring constantly, then stir in the rice.
3. Stir the Fajita seasoning into the chicken stock and add this mixture to the pot. Increase the heat to medium high. Bring the mixture to a boil, then add the drained pinto beans and the diced roasted peppers.
4. When the mixture again returns to a boil, put the lid on the pot, adjust the heat to low, and cook the mixture for 20 minutes or until all of the liquid is absorbed. Remove the pot from the heat and serve as soon as possible.

This is one rice that I feel should also be cooked as simply as possible and enjoyed without any other flavoring.

Thai fragrant or jasmine: Another aromatic rice, but imported from Thailand. It is one of those slightly sticky long grain rices that retains its delicious taste and aroma when served cold.

Texmati: This is a hybrid American rice grown in Texas. It is a cross between Indian Basmati and regular long grain white rice.

Jasmati: An American grown Jasmine rice. Not as fragrant as the Thai version.

Storing and using rice

Rice is a hardy grain that will keep almost indefinitely in the original package if stored in a cool, dry place. Once opened it should be transferred to an airtight container before returning it to the shelf. However, because of the oil content in the bran, brown rice has only about a six month shelf life when properly stored in the original unopened container. Once opened, brown rice should be refrigerated in an airtight container. All cooked rice can be kept for about a week when refrigerated. If frozen in an airtight container, it can be kept for about six months. When aromatic rice is stored, it slowly loses its aroma, so it makes a poor storage rice.

Is rice really healthful food? You bet it is. First it contains no bad cholesterol or extrinsic sugar. Extrinsic sugar is the major culprit in tooth decay. Rice is about 80 percent starch which is processed slowly and constantly by the body to deliver a steady stream of energy to the muscles. When we eat the starch, it passes quickly through the stomach and into the small intestine where it is broken down into simple molecules of glucose. Glucose molecules, in turn, pass through the intestine into the blood stream and offer themselves to the muscles as fuel in the form of glycogen. It takes rice starch about 24 hours to pass through the system in this fashion, thereby delivering a steady medium term supply of energy.

One cup of either cooked brown or enriched white rice also contains the following approximate daily requirements of B complex vitamins: Thiamin (vitamin B-1)—30 percent, Riboflavin (vitamin B-2)—about 2 percent, Niacin (vitamin B-3)—10 to 20 percent depending on the type of rice, Pyridoxine (vitamin B-6)—about 6 percent, Folic Acid—about 2 to 8 percent depending on the rice.

Brown rice delivers a higher percentage of these vitamins than white rice. Adults require eight amino acids in their diet to maintain healthy bones, blood, and tissue. One cup of cooked brown rice will provide about 6 percent of this daily requirement. Rice also contains useful amounts of several essential minerals including phosphorus, zinc, seleni-

um, copper, and iodine. One cup of cooked brown rice will provide approximately 7 percent of your daily requirements for fiber. But all rice also contains what nutritionists call resistant starch. Resistant starch is created when rice starch molecules are squeezed so tight during the cooking process that they become indigestible and pass through the system to form bulk in the colon. About 80 percent of the fiber found in rice is said to be resistant starch which means that all rice contains more fiber than we think.

The recipes

I have put together four simple recipes, each using a different type of rice. The first two are formulas designed to demonstrate just how rice can be cooked and served with a minimum of fuss and still be an interesting complement to any meal. The last two are casseroles I learned to make while surf fishing on Cape Cod with five of the heartiest men that I have ever known. The Spider Rice casserole was designed to be cooked over an open fire in a real neat looking three-legged cast iron pot called a spider. The legs allow the cook to put the pot right into the hot coals. The man who taught me this recipe would often make enough of this dish to feed 10 hungry fishermen.

The fajita rice is a meatless dish made almost exclusively with shelf-stable items. This dish is a classic example of

how it is possible to prepare gourmet food using storage ingredients and spending a minimum amount of time in the kitchen.

Rice is an integral part of many cuisines. It is hard to find a cookbook without an interesting rice recipe in it. Look in your own library and I am sure you will find more rice recipes to suit your personal tastes for cooking rice from your home storage. Δ